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(54) **Bleed valve outlet flow deflector**

(57) A bleed valve assembly for discharging bleed air into a gas turbine engine bypass plenum (116) includes a bleed flow duct (202), a bleed valve (204), and a flow deflector (206). The bleed flow duct (202) is contoured such that it delivers uniformly flowing bleed air to the flow deflector (206) when the bleed valve (204) is in the open position. The flow deflector (206) has a plurality of openings (218-1, 218-2) formed therein. Each opening

(218-1, 218-2) fluidly communicates the bleed air flow passage with the bypass plenum (116). A portion of the openings (218) are oriented at a discharge angle such that bleed air is discharged from each opening (218-1, 218-2) in a direction that does not have a vector component in the direction in which air is flowing in the bypass plenum (116), and another portion of the openings (218) are oriented to provide stress relief to the deflector (206).

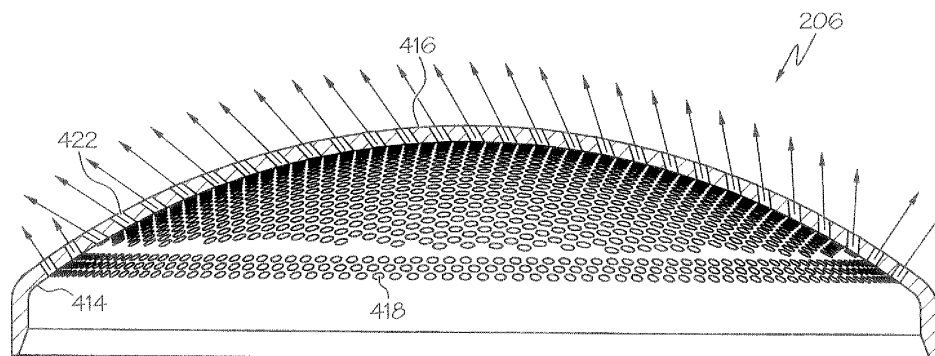


FIG. 5



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 07 11 5768

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			TECHNICAL FIELDS SEARCHED (IPC)
			F01D F02C F24F F02K F04D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 March 2008	Examiner Rau, Guido
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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